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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/060,347	02/01/2002	Gordon Herman Bokelman	021238-469	7641

7590

11/10/2003

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EXAMINER

LOPEZ, CARLOS N

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/060,347

Applicant(s)

BOKELMAN ET AL.

Examiner

Carlos Lopez

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 15-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 10-12 and 21 is/are rejected.
- 7) ☒ Claim(s) 4, 8, 9, 13, 14, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Danford (US 4,263,721). Danford discloses a structure for bulk tobacco curing and drying (Col. 1, Ins. 5-10). Danford's fig. 1 provides for an enclosure (10) wherein a vertically arranged air duct formed by in-line fan (34) is located at a central portion of a sidewall (18), thus meeting the claimed limitation of "at least one vertically arranged air duct positioned in a central *portion* of the enclosure " and "at least one in-line fan positioned in said at least one vertically arranged air duct." The claimed limitation "of at least one ventilating fan located in an upper portion of said enclosure" is met by Danford's ventilating fan (56). The "at least one openable and closeable opening in at least in at least one side wall of said enclosure" is met by Danford sidewall (14) having "access opening doors or doors" (See Col. 1, Ins. 45-46).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 5-7, 10-12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danford (US 4,263,721) in view of Huang (US 4,069,593) and in further view of Sumner (Curing Tobacco with Heat Exchangers, online article June 2001). Danford tobacco curing enclosure functions by "providing a counter flow heat exchanger that is adapted to channel relatively warm or hot moisture laden air being exhausted from the structure and in a heat exchange relationship with inlet outside air being induced into the structure to replace the exhausted air" (Col. 2, Ins. 1-15).

Danford is silent disclosing temperature or humidity sensors inside and outside the enclosure. However, Sumner teaches that tobacco curing requires controlling airflow, humidity and temperatures in the tobacco barn enclosures (Page 1). Sumner also teaches that during yellowing and leaf-drying phases humidity control is essential. Humidity control is achieved by adjusting the fresh air exchange rate of the vent system (Page 2) and that the relationship between wet-bulb and dry bulb temperatures determines the relative humidity within a barn. While Sumner is silent teaching temperature sensors inside and outside the enclosure, Huang discloses placing outside and inside temperature sensors to ascertain the temperature variations of the enclosure through out the day and thus control the environmental conditions of within the enclosure in order to optimize and maximize plant growth (See Col. 14, lines 32-68). Thus in order to control temperature of the enclosure of the barn, temperature sensors located outside determining the properties of the inlet fresh air and temperature sensors inside the barn would be needed to determine necessary amount of inlet fresh air provided to the tobacco barn enclosure. At the time the invention was made it would

have been obvious to one of ordinary skill in the art to provide Danford's tobacco curing barn with Huang's temperature sensors at the outside and inside of the enclosure in order to provide a controlled internal environment that optimizes and maximizes plant growth. Similarly, in order to achieve humidity control of the tobacco barn as taught by Sumner, humidity sensors at the inside and outside of the curing would be needed.

Allowable Subject Matter

Claims 4, 8-9, 13-14, and 22-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The cited prior art does not disclose or reasonably suggest providing a programmable control system receiving input from a temperature and a humidity sensor and providing a controlling output to at least one of said at least one in-line fan, ventilating fan and at least one openable and closeable opening as recited in claims 4, 8-9, 13-14. Nor does the cited prior art disclose or reasonably suggest in-line fan, ventilating fan and at least one openable and closeable opening actuated by a programmable control system operating according to a tobacco curing cycle as recited in claim 22 and a programmable control system that monitors the outdoor humidity using one or more temperature sensors and controls ventilation in the enclosure as recited in claim 23.

Response to Arguments

Applicant's arguments filed 6/17/03 have been fully considered but they are not persuasive. Applicant argues that Danford does not meet the limitation of claim 1 reciting a vertically arranged air duct positioned in a central portion of the enclosure. The limitation of claim 1, "at least one vertically arranged air duct, positioned in a central portion of said enclosure" reads on a vertical air duct located in a central portion of a sidewall that comprises an enclosure as shown in figure 1 of Danford.

Conclusion

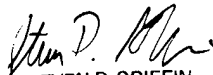
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References A-B in PTO-892 have been cited to show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is (703) 605-1174 and after Dec. 18 2003 calls should be directed to (571) 272-1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (703) 308-1164 and after Dec. 18 2003 calls should be directed to (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

C.L
November 3, 2003


STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700